

Model: FTT3K-E3P/S3P-400-3U7-U3129
COSD: XXXX
Summary description: 3kVA Industrial Quality Frequency Converter
 400Vac, 3-phase to 115Vac (L-L) 3-phase, 400Hz
Customer Name: Thiele KG/Germany
Customer Part Number: Same as above



Product description:

This rugged, industrial quality DC/AC inverter utilizes field proven, microprocessor controlled high frequency PWM technology to generate the required output power with pure sine wave output voltage. It is a mature design with a track record in numerous applications. The inverter is built with internal power modules. One FIB380, three KHI 1200 modules convert the input voltage to an internal DC bus voltage, which feeds three MSI 2300 output modules. High frequency conversion enables a compact construction, low weight and high efficiency. The input and output are filtered for low noise. High quality built-in fans provide sufficient airflow for operation without de-rating within the specified temperature range. The fans draw air into the unit, and exhaust at the terminal side of the unit. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also ensures exceptional mechanical ruggedness. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headrooms, and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control.

Special Features: Conformal coating,

SPECIFICATIONS

Input Voltage

400Vac, 3-phase, 47-63Hz
 360-440Vac operating range
 Input Current: 8Arms max. per phase

Input Protection

Inrush current limiting
 Varistor
 Internal safety fuses
 Lower voltage than the specified minimum input will not damage the unit

Isolation

2250Vdc input to chassis/output
 2250Vdc output to chassis

Standards

Designed to meet
 C22.2 No. 107.1 - 01,
 UL 458 and EN62368-1

EMI

EN 55032 Class A with margins

Switching Frequency

55kHz ±3kHz

Output Voltage

115Vac (L-L), 3-phase, 400Hz
 68Vac (L-N)
 15Arms per phase
 Output neutral is internally connected to chassis

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Better than 5% at full load

Line/Load Regulation

±6% combined from no load to full load

Output Noise

Better than 500mVrms (20MHz BW)

Output Overload Protection

Current limiting with short circuit protection
 Thermal shutdown with automatic recovery in case of insufficient cooling

Output Overvoltage Protection

By internal supply voltage limiting at 140Vac L-L

Efficiency

Typically 80% at full load

Operating Temperature Range

0°C to 50°C for full specification

Temperature Drift

0.05% per °C over operating temperature range

Cooling

By built-in high quality fans

Environmental Protection

Basic ruggedizing
 Conformal coating

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

90,000 hours @ 45°C (Fans not included)
 Demonstrated MTBF is significantly higher

Indicators

None

Control Input

None

Alarm Output

Not installed

Package/Dimensions

3U7: 432 x 132x 407mm
 (17" x 5.2" x 16")
 Chassis mount

Weight

12kg (26 lbs)

Connections


Input: Terminal block Phoenix FRONT
 Output: Terminal block

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice
 Contamination related failures and shipping cost excluded

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